

304-375

Work Order ID 90786

\*90786\*

Item ID: D3759-1

Accept

\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Bushing

Start Date: 25/09/2012 Start Qty: 200.00

\*200\*

Cust Item ID:

Required Date: 09/10/2012 Req'd Qty: 200.00

\*200\*

Customer:

Reference:

Approvals: Process Plan: ML5 Date: 12-09-28 Tooling:

Run Start \*NR1\*

QC: Date: SPC (Y/N):

Date:

Stop \*NR2\*

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3759

Rev A

100

Hardinge CNC LATHE SMALL

0.00

\*100\*

Hardinge

Memo

0.00

Hardinge CNC Lathe Small

Hardinge CNC LATHE SMALL  
Turn per Folio FA727 and Dwg D3759

DO NOT Deburr ENDS

SA 12/10/14

210  $\phi$

110

QC2- Inspect parts off machine FAI/FAIB

0.00

\*110\*

QC

Memo

0.00

Quality Control

SA 12/10/14

210  $\phi$

120

QC8- Inspect parts - second check

0.00

\*120\*

QC

Memo

0.00

Quality Control

DAS 14 12/10/15

210  $\phi$

**Work Order ID 90786**

September-25-12 1:56:11 PM

**\*90786\***

Page 2

Item ID: D3759-1

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Bushing

Start Date: 25/09/2012 Start Qty: 200.00

**\*200\***

Cust Item ID:

Required Date: 09/10/2012 Req'd Qty: 200.00

**\*200\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

Identify as per dwg &amp; Stock Location: \_\_\_\_\_

0.00

**\*130\***

Packaging

Memo

0.00

Packaging

\*\*\*\*\*STOCK IN BASKET CELL\*\*\*\*\*

210x 12-10-17

140

QC21- Final Inspection - Work Order Release

0.00

**\*140\***

QC

Memo

0.00

Quality Control

12/10/18

12-10-17

# Picklist Print

September-25-12 1:56:14 PM

Work Order ID: 90786

Parent Item: D3759-1

Parent Item Name: Bushing

\*90786\*

\*D3759-1\*

Page 1

Start Date: 25/09/2012

Required Date: 09/10/2012

Start Qty: 200.00

Required Qty: 200.00

Comments: IPP Rev:A 08-03-04 new issue DD verified by: LL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304R0.375

Purchased

No

110

f

32.5080

0.0725

15.26316

**\*M304R0 375\***

\*\*

304 ROUND BAR 0.375

SD 12/10/14

## Location

## Loc Qty

## Loc Code

MAT029

32.508

119346

1.564

120204

2.721

121380

4.807

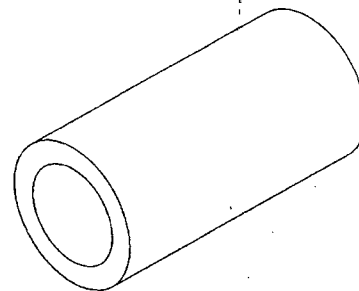
122831

23.416

15.2 R 4

10 R 4





D3759-1 BUSHING

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER

NO. 90786 MLJ  
12-09-25

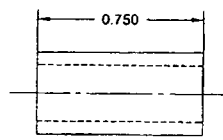
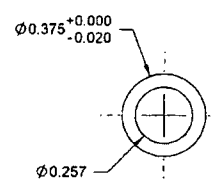
RELEASED  
12-09-25

**NOTES:**

- 1) MATERIAL: AISI 304/316, STAINLESS STEEL ROD  
(REF. DART SPEC M304R)  
OR AISI 304/316, STAINLESS STEEL TUBE  
(REF. DART SPEC M304TR)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.01 lbs

A		NEW ISSUE		AJS		08.03.03		
REV.		DESCRIPTION			BY		DATE	
DESIGN		AJS		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA				
DRAWN		AJS						
CHECKED		ME		DRAWING NO.		REV. A		
MFG. APPR.		M.P.		D3759		SHEET 1 OF 2		
APPROVED		M.P.		TITLE		SCALE		
DE APPR.		H		BUSHING		NTS		
DATE		08.03.03		COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.				

10786



**D3759-1 BUSHING**

11.08.03-11.03.04

DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D3759	SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	BUSHING	NTS
DATE	08.03.03	<small>COPYRIGHT © 2002 BY DART AEROSPACE LTD          THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. NO DISSEMINATION OR REPRODUCTION OF THIS DOCUMENT IS PERMITTED WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>	

## Receiving Report

Date: 12/8/27 Batch No: M12283  
 Supplier: MESAPXCASTUE Dart P/O: 17688

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☒ No ☐  
 Receipt: Cash ☐ Cr ☒  
 Release Note Attached: Yes ☒ No ☐ N/A ☐  
 Waybill Attached: Yes ☐ No ☒ N/A ☐  
 Shipment Complete: Yes ☒ No ☐ N/A ☐  
 QC6 Inspection: OK 12/19/12 N/A ☐  
 Work Order:                      N/A ☒

### Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
<u>M4130R5-048</u>		<u>36</u>	<u>0</u>	<u>0</u>	<u>36</u>	

Initials of receiver (if shipment OK)                      Level 12                     

Production/Admin: 12/8/27  
 Date                       
 Received/Costing                       
 Initial                     

Location

## Page 1 of 1

All amounts are calculated in domestic currency.

Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID\Vendor Name		VC-MET001	Metaux Castle								
PO17698	1		M174B1.250X02.000 f		8/29/2012	8/27/2012	24.6667	\$46.72	0.0000	0	\$1,152.45
CAD	No		17-4 SS Bar 1.250 x f 2.00 122831		24.0000	DESJ02		\$1,152.45	0.0000	0	
	2		M174R0.750 f		8/29/2012	8/27/2012	24.0000	\$5.70	0.0000	0	\$136.68
	No		17-4 Round bar .750 f 122831		24.0000	DESJ02		\$136.68	0.0000	0	
	3		M304R0.375 f		8/29/2012	8/27/2012	48.0000	\$1.40	0.0000	0	\$67.25
	No		30-4 ROUND BAR f 0.375 122831		48.0000	DESJ02		\$67.25	0.0000	0	
									Total Received Quantity:		96.6667
									Total Qty to Inspect (PO U/M):		0.0000
									Total Reject Quantity:		0.0000
									Total Receipt Value:		\$1,356.39
									Total Balance Due Quantity:		0.0000



**Castle Metals®**

A. M. Castle &amp; Co.

**PACKING SLIP/  
CERTIFICATE OF CONFORMANCE**

Page 1 of 1

Shipment No:1442322

<b>Ship From:</b> A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 24-AUG-2012	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid		<b>Carrier</b> MANITOULIN		<b>BOL No</b> 1442322-2	

<b>Shipment Details</b>	<b>Final Destination Branch - MON</b>
-------------------------	---------------------------------------

<b>Order No</b> 2374031	<b>Line No</b> 3	<b>Item No</b> 15043	<b>Description</b> 0.3750 RD.304/304L STAINLESS.CF.ANN.132.0000-156.0000 SPECIFICATIONS: ASTM A276				
<b>Purchase Order No</b> 17698		<b>Part Number</b>		<b>Ordered Qty</b> 48.00 FT		<b>Invoice Qty</b> 48.0000 FT	
<b>Details</b>							
<b>Delivery No.</b> 117896135	<b>Mill</b> NORTH AMERICAN STAINLESS	<b>Heat Number</b> B3B1	<b>Mech Id</b>	<b>PCS</b> 4	<b>Width (IN)</b>	<b>Length (IN)</b> 144.0000	<b>Shipped Qty(LBS)</b> 18.0480

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 90 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:	Date:	Name:
--	-------	-------

Castle Metals FP

HEAT NUMBER 8381  
 MECHANICAL ID \_\_\_\_\_  
 ITEM CODE 15043  
 LOT NUMBER \_\_\_\_\_  
 PO NUMBER 145984  
 RECEIPT DATE 2-10-12  
 SUPPLIER NAS  
 SPECIFICATION \_\_\_\_\_  
 LCS NO  
 COMMENT \_\_\_\_\_  
 APPROVED DL



17



**NORTH AMERICAN  
STAINLESS**

# METALLURGICAL TEST REPORT

6870 Highway 42 East  
Ghent, KY 41045-9615  
(502) 347-6000

Certificate: 709423 17

Mail To:

A.M. CASTLE AND COMPANY  
1420 KENSINGTON ROAD-SUITE 220  
OAK BROOK IL 60523

Ship To:

A.M. CASTLE AND COMPANY  
3400 NORTH WOLF ROAD  
FRANKLIN PARK IL 60131

Date: 2/07/2012 Page: 1 of 1

Steel: 304/304L

Finish: Cold Draw

Dia/Thk: .3750 in

Leg Length:

Length: 144.00 in

Corrosion: ASTM A262 Prac A/E OK

Customer: 0032 001

NAS Order: LN 79853 3

Your Order: 145984

Item Code: 15043

## PRODUCT DESCRIPTION:

ASTM A193/10a-ASME SA193/10 CL 1 GR B8(EXC PAR 7.2)

GRAIN SIZE= 4-6

Round Bar, Annealed, Cold Draw

UNS 30400/30403 EN 10204 3.1, ASTM A484/10

ASTM A276/10, ASTM A479/10a, ASTM A182/10 CHEM ONLY,

ASME SA479/10a, ASME SA182/10 CHEM ONLY

AMS 5639H, AMS 5647J, AMS QQS-763B, QQS-763F

## REMARKS:

COMPLIES W/REQUIREMENTS OF DEARS EU DIRECTIVE 2002.95.

EC. RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG IN USA

FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight
BE36080	1706								

## CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Heat	Supplier #	CM	C	CO	CR	CU	MN	MO	N	NI	P	S
B3B1		US	.018	.13	18.22	.35	1.34	.26	.056	8.62	.030	.0280
			SI									
			.31									

## MECHANICAL PROPERTIES

	1 d o i c f	HB	No.	.2YS KSI	UTS KSI	RA %	Elong % 2"
BE36080	R L	208.0		92.29	112.25	69.12	41.00

NAS hereby certifies that the analysis on this certification is correct and the material meets the specifications stated.

Technical Dept. Mgr.

ERIC HESS

12/09/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO17698

Purchase Order Date 8/16/12

PO Print Date 8/16/12

Page Number 1 of 2

Order From :

VC-MET001

METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100  
TORONTO, ON M4Y 3A5  
CA

Contact Name

Vendor Phone

514 694 9575

Vendor Fax

514 695 3281

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAKED**  
EXP 10/31/12

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M174B1.250X02.000 05	17-4 SS Bar 1.250 x 2.000	8/29/12 Yes	24.00 f 29.6667	Yours ppd	\$46.3500	\$1,112.40
Special Inst: MATERIAL: 17-4 PH SS BAR AS PER AMS 5604/5643 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI							
2	M174R0.750 030	17-4 round bar .750	8/29/12 Yes	24.00 f	Yours ppd	\$5.6500	\$135.60
Special Inst: MATERIAL: 17-4 PH/S17400 TYPE 630 SS ROUND BAR AS PER AMS 5643 OR ASTM A564							
3	M304R0.375 029	304 ROUND BAR 0.375	8/29/12 Yes	48.00 f	Yours ppd	\$1.3900	\$66.72

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required **YES** NO

Change Nbr: 1

Change Date: 8/16/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO17698

Purchase Order Date 8/16/12

PO Print Date 8/16/12

Page Number 2 of 2

Order From :

VC-MET001

METAUX CASTLE

A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100  
TORONTO, ON M4Y 3A5  
CA

Contact Name

Vendor Phone

514 694 9575

Vendor Fax

514 695 3281

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Special Inst:

MATERIAL: MATERIAL: 304/316 SS  
ROUND BAR  
AS PER ASTM A276  
NOTE: AISI 303 NOT ACCEPTABLE

4

M4130NS.049

4130 Sheet .049

8/29/12

36.00

Yours ppd

\$8.7500

\$315.00

Yes

sf

12-08-24  
Q1 042

Special Inst:

MATERIAL: AISI 4130N STEEL SHEET  
AS PER  
MIL-S-18729 OR AMS 6350 OR AMS 6351

PO Total:

\$1,629.72

MATERIAL CERTIFICATION  
REQ'D UPON DELIVERY

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required - YES NO

Change Nbr:

1

Change Date: 8/16/12